

## PART 7

### PERFORMANCE STANDARDS

#### §27-700. Compliance.

All uses and activities established after the effective date of this Chapter shall comply with the following standards.

#### §27-701. Natural Resource Protection Standards.

1. All uses and activities established after the effective date of this Chapter shall comply with the following resource protection standards. Site alterations, grading, filling or clearing of vegetation prior to the submission of applications for zoning or building permits or the submission of plans for subdivision or land development shall be a violation of this Chapter. Cutting of trees and/or grading that is initiated two years or less before the submission of plans for subdivision, land development, or building permits is presumed to be in anticipation of development.

If an application for building, subdivision or land development is submitted for the property within two years of the date the cutting and/or grading began, the requirements for resource protection, as set forth in this Chapter and in the Borough Subdivision/Land Development Ordinance, shall be applied to the property as it was prior to the removal of trees or grading. If forest removal, tree removal or grading has exceeded the limits set forth in borough ordinances, the applicant shall be required to replace trees removed during the tree or forest removal process. Replacement shall be based on the actual number and size of trees or forest removed, and trees shall be replaced on the basis of three inches of new stock for every one inch that was removed. Determination of actual caliper-inches of trees removed may be determined through a site inspection or on the basis of the tree inventory that was submitted to the Borough. If it is not possible to determine the caliper inches of trees removed, then replacement trees shall be provided so that there shall be a minimum of 2,000 caliper-inches of trees per acre after replanting. Provided that the minimum planting requirements for the proposed site have been met, the applicant may, at his option and with the approval of the Council, plant the replacement trees off-site provided that the location selected benefits the public. All costs associated with the planting at the alternate location shall be borne by the applicant.

2. The following Natural Resource Standards shall apply to all uses.
  - A. **Floodplains.** Areas identified as within the floodplain of the 100-year recurrence interval flood shall not be altered, graded, filled or built upon except in conformance with §27-703 Floodplain Regulations. The floodplain area shall be those areas classified as special flood hazard areas (SFHAs) in the Flood Insurance Study dated May 18, 1999 and issued by

the Federal Emergency Management Agency or the most recent revision thereof, including all digital data developed as part of the Flood Insurance Study. For areas along streams and watercourses where the 100-year floodplain has not been delineated, the requirements of Floodplain Soils shall be met.

- B. **Floodplain Soils.** All such areas shall not be altered, regraded, filled or built upon except in conformance with §27-703 Floodplain Regulations. Floodplain soils shall not be used to delineate the floodplain where the 100-year floodplain has been delineated by a floodplain study.

Studies prepared by a registered engineer expert in the preparation of hydrological studies may be used to delineate the 100-year floodplain with a floodway and flood fringe in place of areas designated as “floodplain soils” and “approximate 100-year Flood Boundary.” Such hydrological studies shall be subject to the review and approval of the Borough Council on the recommendation of the Borough Engineer.

- C. **Steep Slopes.** In areas of steep slopes, i.e., those above 8%, the following standards shall apply:

- (1) 8 - 15%: no more than 40% of such areas shall be developed and/or regraded or stripped of vegetation.
- (2) 15 - 25%: no more than 30% of such areas shall be developed and/or regraded or stripped of vegetation.
- (3) 25% or more: no more than 15% of such areas shall be developed and/or regraded or stripped of vegetation.
- (4) Small areas of steep slopes of less than 3,000 square feet of contiguous slope shall be exempt from the limitation of this subsection.

- D. **Forests.** No more than 40% of any forest (as defined in §27-201) may be cleared or developed. The remaining 60% shall be maintained as permanent open space. In addition, any individual trees greater than 15 inches caliper may not be removed in a land development proposal without approval of the Borough Council. This does not include the removal of sick or dead trees as determined by a qualified person duly appointed by Borough Council.

- E. **Wetlands.** These areas shall be left as permanent open space. No development, grading, filling, piping or diverting shall be permitted except for required roads. No construction of any kind inclusive of the storage of materials is permitted within fifty (50) feet of the edge of any wetland.

A wetland is an ecosystem that depends on constant or recurrent, shallow inundation or saturation at or near the surface of the substrate. The minimum essential characteristics of a wetland are recurrent, sustained inundation or saturation at or near the surface and the presence of physical, chemical, and biological features reflective of recurrent, sustained inundation or saturation. Common diagnostic features of wetlands are hydrology, hydric soils and hydrophytic vegetation. Any area containing all three elements shall be defined as wetlands as shall any area that meets the definition of a wetland in either 1) The United States Army Corps of Engineers Technical Report Y87-1, Corps of Engineers Wetlands Delineation Manual; or 2) The United States Environmental Protection Agency Wetlands Identification Delineation Manual, Volume I, Rational, Wetland Parameters, and Overview of Jurisdictional Approach, Volume II, Field Methodology, as most recently updated or modified; or 3) The Pennsylvania Department of Environmental Resources Wetlands Identification and Delineation, Chapter 105 Dam Safety and Waterways Management Rules and Regulations, as most recently updated or modified. Where a difference between the foregoing criteria exists, the most restrictive criteria will be used in any particular case. For the purposes of this definition and for its application to this Chapter most restrictive criteria shall mean the criteria which effects preservation of the most extensive area of wetlands.

No area, which does not contain the required hydrology, hydric soils and hydrophytic vegetation shall be considered as a regulated wetland except where specific physicochemical, biotic, or anthropogenic factors have removed them or prevented their development. In the event that such factors have occurred and have prevented the development of or removal of wetland hydrology, hydric soils or hydrophytic vegetation, the area shall be considered as a wetland and regulated as such with the exception that replacement and/or mitigation will not be required by the Borough unless required by another regulatory entity.

All wetland determinations shall be performed by the Army Corp of Engineers or by an independent party certified by the Army Corp of Engineers to be expert in wetland delineations in which case a copy of such certification shall be provided with the subdivision or land development application and all wetland delineations shall be attested to and sealed.

At the time of application, the applicant shall file for review a wetlands report that shall identify and delineate all wetlands on the plan set in sufficient detail as to make on-site verification possible. All wetland areas shall be clearly staked at the time of application and throughout the review period to allow the entire parameter of the wetland area(s) to be located.

In the event that one or more but less than three of the normal characteristics of a wetland are present, the party delineating the wetlands shall identify such areas and clearly indicate their location on the plan set. Such areas shall be clearly staked in the field at the time of application and throughout the review period to allow such areas to be located. All such areas shall be considered wetlands unless the application for land development or sub-division is accompanied by a signed and certified, detailed explanation that asserts that the lack of a particular wetland characteristic is a normal and natural condition and is not the result of human intervention (including agricultural activities) or an unusual natural event.

- F. **Soil Erosion and Sedimentation.** All developments shall protect streams, lakes and ponds from sedimentation damage and control erosion in accordance with the “Clean Streams Law PL 198, Chapter 102,” except that in addition all developments shall submit a plan as part of the preliminary land development plan even where they are less than 25 acres in extent.
- G. **Streams, Watercourses, Waters of the Commonwealth, Lakes or Ponds:** Such areas shall not be altered, graded, developed, filled, piped, diverted or built upon. No construction activity or permanent construction of any kind inclusive of the storage of materials is permitted within 50 feet of the edge of any waterway.
- H. **Riparian buffer.** A riparian buffer shall be established along all watercourses tributary to Neshaminy Creek. The buffer shall be 10 feet in width measured from the top of bank of the stream and extending on both sides of the stream. The area of the riparian buffer may be counted as part of the minimum lot area. The purpose of the buffer is to protect water quality, prevent erosion and sedimentation, and prevent flooding. Within the riparian buffer, there shall be no grading, removal of vegetation, building, disturbance, or placement of structures, except as permitted by this Chapter.

**§27-702. Site Design and Intensity Performance Standards; Site Capacity Calculation.**

- A. The following site capacity calculations shall be submitted with applications for Use B3 Single-Family Detached Cluster and Use B4 Traditional Neighborhood Development. Through these calculations, the net buildable site area, the maximum number of lots or dwelling units, the maximum amount of impervious surfaces and the required open space shall be determined for the specific site. The required open space shall be the minimum open space as related to the Minimum Open Space Ratio specified in Part 4 Use Regulations and the area and

dimensional requirements of §§27-500 through 27-505, or the calculated Resource Protection Land, whichever is the greater amount. Areas identified as Resource Protection Land shall be included in the required open space for these uses.

(1) Base Site Area: Certain portions of tracts may not be usable for development. These shall be subtracted from the site area to determine base site area. The following calculation for Base Site Area shall be used for all site capacity calculations.

(a) Site area as determined by actual on-site survey \_\_\_\_\_acres

(b) *Subtract* land which is not contiguous, i.e:

i. A separate parcel which does not abut or adjoin, nor share common boundaries with the rest of the development, and/or

ii. Land which is cut off from the main parcel by an expressway, arterial or collector roadway, railroad, existing land uses, major stream, or other body of water so as to serve as a major barrier to common use, or so that it is isolated and unavailable for building purposes. \_\_\_\_\_acres

c. *Subtract* land which in a previously approved subdivision was reserved for resource protection, open space, or recreation. \_\_\_\_\_acres

d. *Subtract* land used or zoned for another use, i e., land used or to be used for commercial or industrial uses in a residential development, or land in a different zoning district than the primary use. \_\_\_\_\_acres

e. *Subtract* land within ultimate rights-of-way of existing roads, or utility rights-of-way or easements. \_\_\_\_\_acres

*Equals* Base Site Area \_\_\_\_\_acres

(2) Resource Protection Land—All land and resources within the base site area shall be mapped and measured for the purpose of determining the amount of open space needed to protect it. Portions of a site which may have overlapping resource protection restrictions shall be subject to the highest open space ratio and shall be calculated only once.

Resource	Protection Ratio		Acres of Land in Resource	Resource Protection Land	Total Proposed Disturbance
Floodplains	1.00	x	_____acres	_____acres	_____acres
Floodplain Soils	1.00	x	_____acres	_____acres	_____acres
Wetlands	1.00	x	_____acres	_____acres	_____acres

Steep slopes (26% or more)	0.85	x	_____ acres	_____ acres	_____ acres
Steep slopes (16 – 25%)	0.70	x	_____ acres	_____ acres	_____ acres
Steep slopes (8 – 15%)	0.60	x	_____ acres	_____ acres	_____ acres
Forest	0.60	x	_____ acres	_____ acres	_____ acres

Total Land With Resource Restrictions = \_\_\_\_\_ acres  
Total Resource Protection Land = \_\_\_\_\_ acres  
Total Proposed Disturbance = \_\_\_\_\_ acres

a. Calculation of Minimum Required Open Space

Base Site Area \_\_\_\_\_ acres  
*Multiply* by Minimum Open Space Ratio \_\_\_\_\_ acres  
*Equals* Minimum Open Space \_\_\_\_\_ acres

b. Calculation of Net Buildable Site Area

Base Site Area \_\_\_\_\_ acres  
*Minus* Total Resource Protection Land or Minimum Open Space  
(whichever is greater) \_\_\_\_\_ acres  
*Equals* Net Buildable Site Area \_\_\_\_\_ acres

c. Determination of Maximum Number of Dwelling Units/Lots

Net Buildable Site Area \_\_\_\_\_ acres  
*Multiply* by Maximum Density  
(See §27-406 and §27-500 through 27-505) \_\_\_\_\_ acres  
*Equals* Maximum Number of Dwelling Units/Lots (rounded down)  
\_\_\_\_\_ units/lots

d. Determination of Maximum Amount of Impervious Surface

Net Buildable Site Area \_\_\_\_\_ acres  
*Multiply* by Maximum Site Impervious Surface Ratio \_\_\_\_\_ acres  
*Equals* Maximum Site Imperviousness \_\_\_\_\_ acres

e. Site Capacity Summary

Base Site Area \_\_\_\_\_ acres  
Total Resource Protection Land \_\_\_\_\_ acres  
Required Open Space \_\_\_\_\_ acres  
Net Buildable Site Area \_\_\_\_\_ acres  
Maximum Number of Dwelling Units/Lots (rounded down) \_\_\_\_\_ units/lots  
Maximum Site Imperviousness \_\_\_\_\_ acres

**§27-703. Floodplain Regulations.**

1. No structure or land shall hereafter be used and no structure shall be located, relocated, constructed, reconstructed, enlarged, substantially improved or structurally altered except in full compliance with terms and provisions of this Part and any other applicable ordinances and regulations which apply to uses within the jurisdictions of this Part and all other applicable codes and ordinances such as the Hulmeville Borough Subdivision and Land Development Ordinance and the Hulmeville Borough Building Code. Zoning and building permits shall be required before any construction or development is undertaken within any area of the Borough. In addition, all such uses, activities, and development shall be undertaken only in compliance with Federal or State law including §404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334. Under no circumstances shall any use, activity and/or development adversely affect the capacity of the channels or floodways of any watercourse, drainage ditch, or any other drainage facility or system.
  - A. **Purpose.** The purpose of these provisions is to prevent the loss of property and life, the creation of health and safety hazards, the disruption of commerce and governmental services, the extraordinary and unnecessary expenditure of public funds for flood protection and relief, and to protect the tax base by:
    - (1) Regulating uses, activities, and development which, acting alone or in combination with other existing or future uses, activities, and development, will cause unacceptable increases in flood heights, velocities and frequencies.
    - (2) Restricting and prohibiting certain uses, activities, and development from locating, within areas subject to flooding.
    - (3) Requiring all those uses, activities, and development that do occur in flood-prone areas to be protected and/or floodproofed against flooding and flood damage.
    - (4) Protecting individuals from buying lands and structures which are unsuited for intended purposes because of flood hazards.
  - B. **Abrogation and Greater Restrictions.** This Part supersedes any other conflicting provisions which may be in effect in identified floodplain areas. However, any other Chapter or ordinance provisions shall remain in full force and effect to the extent that those provisions are more restrictive. If there is any conflict between any of the provisions of this Part, the more restrictive shall apply.

C. **Warning and Disclaimer of Liability.**

- (1) The degree of flood protection sought by the provisions of this Chapter is considered reasonable for regulatory purposes and is based on acceptable engineering methods of study. Larger floods may occur on rare occasions. Flood heights may be increased by man-made or natural causes. This Chapter does not imply that areas outside the floodplain districts or that land uses permitted within such districts will be free from flooding or flood damages.
- (2) This Chapter shall not create liability on the part of the Borough or any officer or employee thereof for any flood damages that result from reliance on this Chapter or any administrative decision lawfully made thereunder.

D. **Definitions.** The following definitions apply only to terms used in §27-703.1. Definitions found in Part 2 of this ordinance apply in all other sections of this Ordinance.

**BASE FLOOD** – a flood which has a one percent chance of being equaled or exceeded in any given year (also called the “100-year flood” or one-percent (1%) annual chance flood).

**BASE FLOOD ELEVATION (BFE)** – the elevation shown on the Flood Insurance Rate Map (FIRM) for Zones AE, AH, A1-30 that indicates the water surface elevation resulting from a flood that has a 1-percent or greater chance of being equaled or exceeded in any given year.

**BASEMENT** - any area of the building, having its floor subgrade (below ground level) on all sides.

**COMPLETELY DRY SPACE** - a space which will remain totally dry during flooding; the structure is designed and constructed to prevent the passage of water and water vapor.

**CONSTRUCTION** - the construction, reconstruction, renovation, repair, extension, expansion, alteration, or relocation of a building, or structure, including the placement of manufactured homes.

**DEVELOPMENT** - any man-made change to improved or unimproved real estate, including but not limited to the construction, reconstruction, renovation, repair, expansion, or alteration of buildings or other structures; the placement of manufactured homes; streets, and other paving; utilities; filling, grading and excavation; mining; dredging; drilling operations; storage of equipment or materials; and the subdivision of land.



**EXISTING MANUFACTURED HOME PARK OR SUBDIVISION** – a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

**EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION** – the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

**ESSENTIALLY DRY SPACE** - a space, which will remain dry during flooding, except for the passage of some water vapor or minor seepage; the structure is substantially impermeable to the passage of water.

**FLOOD INSURANCE RATE MAP (FIRM)** - the official map on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

**FLOOD INSURANCE STUDY (FIS)** - the official report provided by the Federal Emergency Management Agency that includes flood profiles, the Flood Insurance Rate Map, the Flood Boundary and Floodway Map, and the water surface elevation of the base flood.

**FLOODWAY** - the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood.

**FLOODPROOFING** - any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

**HIGHEST ADJACENT GRADE** - The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

**HISTORIC STRUCTURES** - any structure that is:

- (1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily

determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

- (2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (3) Individually listed on a state inventory of historic places in states which have been approved by the Secretary of the Interior; or
- (4) Individually listed on a local inventory of historic places in communities with historic preservation that have been certified either:
  - i. By an approved state program as determined by the Secretary of the Interior or
  - ii. Directly by the Secretary of the Interior in states without approved programs.

**LOWEST FLOOR** - the lowest floor of the lowest fully enclosed area (including basement). An unfinished, flood resistant partially enclosed area, usable solely for parking of vehicles, building access and incidental storage, in an area other than a basement area, is not considered the lowest floor of a building, provided that such space is not designed and built so that the structure in violation of the applicable non-elevation design requirements of this Chapter.

**MANUFACTURED HOME** - a structure, transportable in one or more sections, which is built on a permanent chassis, and is designed for use with or without a permanent foundation when attached to the required utilities. The term includes park trailers, travel trailers, recreational and other similar vehicles which are placed on a site for more than 180 consecutive days.

**MANUFACTURED HOME PARK OR SUBDIVISION** - a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

**MINOR REPAIR** - the replacement of existing work with equivalent materials for the purpose of its routine maintenance and upkeep, but not including the cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the exitway requirements; nor shall minor repairs include addition to, alteration of, replacement or relocation of any

standpipe, water supply, sewer, drainage drain leader, gas, soil, waste, vent or similar piping, electric wiring or mechanical or other work affecting public health or general safety.

**NEW CONSTRUCTION** - structures for which the start of construction commenced on or after the [effective start date of this floodplain management regulation] adopted by the community and includes any subsequent improvements to such structures. Any construction started after [effective date of community's first floodplain management ordinance adopted by the community] and before [effective start date of this floodplain management ordinance] is subject to the ordinance in effect at the time the permit was issued, provided the start of construction was within 180 days of permit issuance.

**NEW MANUFACTURED HOME PARK OR SUBDIVISION** - a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community.

**RECREATIONAL VEHICLE** - a vehicle which is:

- (1) built on a single chassis;
- (2) not more than 400 square feet, measured at the largest horizontal projections;
- (3) designed to be self-propelled or permanently towable by a light-duty truck,
- (4) not designed for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

**REGULATORY FLOOD ELEVATION** – the base flood elevation (BFE) or estimated flood height as determined using simplified methods plus a freeboard safety factor of one and one-half (1 ½) feet/

**SPECIAL FLOOD HAZARD AREA** - means an area in the floodplain subject to a 1 percent or greater chance of flooding in any given year. It is shown on the FIRM as Zone A, AO, A1-A30, AE, A99, or, AH.

**START OF CONSTRUCTION** - includes substantial improvement and other proposed new development and means the date the Permit was issued, provided the actual start of construction, repair, reconstruction,

rehabilitation, addition, placement, or other improvement was within 180 days from the date of the permit and shall be completed within twelve (12) months after the date of issuance of the permit unless a time extension is granted, in writing, by the Floodplain Administrator. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufacture home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first, alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

**STRUCTURE** - a walled and roofed building, including a gas or liquid storage tank that is principally above ground, as well as a manufactured home.

**SUBSTANTIAL DAMAGE** - damage from any cause sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed fifty (50) percent or more of the market value of the structure before the damage occurred.

**SUBSTANTIAL IMPROVEMENT** - any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage” (or “repetitive loss” when a repetitive loss provision is used) regardless of the actual repair work performed. The term does not, however, include any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions.

Historic structures undergoing repair or rehabilitation that would constitute a substantial improvement as defined in this ordinance, must comply with all ordinance requirements that do not preclude the structure’s continued designation as a historic structure. Documentation that a specific ordinance requirement will cause removal of the structure from the National Register of Historic Places or the State Inventory of Historic places must be obtained from the Secretary of the Interior or the

State Historic Preservation Officer. Any exemption from ordinance requirements will be the minimum necessary to preserve the historic character and design of the structure.

**VIOLATION** - means the failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in 44 CFR §60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

E. **Establishment of Floodplain Areas.** The identified floodplain areas shall be any areas of Hulmeville Borough, classified as special flood hazard areas (SFHAs) in the Flood Insurance Study (FIS) and Flood Insurance Rate Maps (FIRMs) dated May 18, 1999 and issued by the Federal Emergency Management Agency (FEMA) or the most recent revision thereof, including all digital data developed as part of the Flood Insurance Study and, any floodplain soils. The identified floodplain area shall consist of the following specific areas:

- (1) **FW (Floodway Area)** - the areas identified as Floodway in the Flood Insurance Study which represents the channel of a watercourse and the adjacent land areas that must be reserved in order to discharge the base flood. The term shall also include floodway areas which have been identified in other available studies or sources of information for those special floodplain areas where no floodway has been identified in the Flood Insurance Study.
- (2) **AE (AE Area without Floodway)** – those areas identified as an AE Zone on the FIRM included in the FIS prepared by FEMA and for which base flood elevations have been provided in the FIS but no floodway has been delineated.
- (3) **Floodplain Soils.** Areas subject to periodic flooding or listed in the Official Soil Survey provided by the U.S. Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov/>), as soils having a flood frequency other than none. Regulations concerning floodplain soil areas shall be the same as the regulations pertaining to the Flood Fringe Zone.

**F. Use of Floodplain Areas.**

- (1) The floodplain areas described above shall be overlays to the existing underlying, zoning district and the floodplain provisions shall serve to supplement the underlying zoning districts and the floodplain provisions shall serve to supplement the underlying zoning provisions. Where there is a conflict between the provisions or requirements of any floodplain requirement and those of the underlying zoning, the more restrictive provisions and those pertaining to the floodplain area shall apply. However, in all cases, the floodplain requirements shall be met.
- (2) In the event any provision concerning a floodplain regulation is declared inapplicable as a result of any legislative or administrative actions or judicial discretion, the basic underlying zoning district provisions shall remain applicable.
- (3) The delineation of any of the floodplain areas may be revised by the Borough where natural or man-made changes have occurred and/or more detailed studies conducted or undertaken by the U.S. Army Corps of Engineers, the Federal Emergency Management Agency, or other qualified agency or individual documents the notification for such change. However, prior to any such change, approval must be obtained from the Federal Insurance Administration (FIA) and the Pennsylvania Department of Community and Economic Development.
- (4) Initial interpretations of the boundaries of the floodplain areas shall be made by the Zoning Officer. Should a dispute arise concerning the boundaries of any of the area, the Zoning Hearing Board shall make the necessary determination. The persons questioning or contesting the location of the boundary shall be given a reasonable opportunity to present their case to the Board and to submit their own technical evidence if they so desire.

**G. Existing Structures in the Floodplain Areas.** A structure or use of a structure or premises which lawfully existing before the enactment of these provisions, but which is not in conformity with these provisions, may be continued subject to the following conditions:

- (1) No expansion or enlargement of an existing structure shall be allowed within any identified floodway that would cause any increase in flood heights not withstanding any other provisions of this Ordinance.

- (2) Any modification, alteration, repair, reconstruction, or improvement of any kind to an existing structure and or use, to an extent or costing an amount of 50% or more of its market value shall constitute a substantial improvement and shall be undertaken only in full compliance with the provisions of this Ordinance. All improvements and repairs meeting the definition of substantial improvement and occurring during the ten years preceding the filing of an application for a permit shall be applied cumulatively toward the fifty (50) percent threshold for market value.
- (3) Any modification, alteration, repair, reconstruction, or improvement of any kind to an existing structure and or use, to an extent or amount of less than 50% of its market value shall not be required to conform with the elevation floodproofing requirements. A letter of exemption from the floodplain requirements shall be obtained from the Building Permit Officer before construction is started.

H. **Floodway Zone Regulations.** In the floodway areas, encroachments, including fill, new construction, substantial improvements, and other development that would result in any increase in flood levels within the community during the occurrence of the base flood are prohibited.

- (1) Permitted Uses. In the floodway areas, the following uses and activities are permitted provided that they are in compliance with the provisions of the underlying zoning district and are not prohibited by any other ordinance and provided that they do not require structures, fill or storage of materials and equipment.
  - (a) Agricultural uses such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, truck farming, forestry, sod farming, and wild crop harvesting.
  - (b) Public and private recreational uses and activities such as parks, day camps, picnic grounds, golf courses, boat launching, and swimming areas, hiking, bicycling, and horseback riding trails, wildlife and nature preserves, game farms, fish hatcheries, tennis courts, and hunting and fishing areas.
  - (c) Yard areas for, residential and nonresidential uses as required by this ordinance, gardens, and play areas.
- (2) Uses Permitted by Special Exception. The following uses and activities may be permitted by Special Exception in accordance with §27-1206 provided that they are in strict compliance with the

provisions of the underlying district and are not prohibited by any other ordinance:

- (a) Utilities, public facilities and improvements such as railroads, streets, bridges, transmission lines, pipe lines, water treatment plants, and other similar or related uses.
  - (b) Water related uses and activities such as marinas, docks, wharves, piers, etc.
  - (c) Storage of materials and equipment provided they are not buoyant, flammable or explosive and are not subject to major damage by flooding, and provided such material and equipment is firmly anchored to prevent flotation or movement. Storage of materials and equipment listed in §27-703.1.Q.(1). shall be prohibited in floodplain areas.
  - (d) Non-pervious parking areas.
  - (e) Uses and activities accessory to the uses and activities in §27-703.1.H.(1)(a).
- (3) The placement of any mobile home or manufactured home or manufactured home park in the floodway zone is prohibited.
  - (4) All uses, activities, and development shall be undertaken in strict compliance with the floodproofing provisions contained in this and all other applicable codes and ordinances.

**I. AE Zone Regulations.**

- (1) All land uses permitted by right or special exception in the underlying zone (Part 4) are permitted as Special Exceptions in the Flood Fringe Zone provided that all such uses, activities and or development shall be undertaken in strict compliance with the filling, floodproofing and related provisions contained in this Ordinance and all other applicable codes and ordinances.
- (2) The placement of any mobile home or manufactured home or manufactured home park in the AE Zone Area is prohibited.

**J. Floodplain Soils Area Regulations.** Along those portions of streams and watercourses where the Floodway and AE Zone areas have not been determined, the following regulations pertaining to floodplain soils areas shall apply:



- (1) For the purposes of this Section, it shall be assumed that, absent justification to the contrary submitted by the applicant and approved by the Borough, any activity other than allowed in §27-703.1.H Floodway Zone Regulations, will substantially affect the elevation and velocity of floodwaters. Therefore, the provisions of §27-703.1.H Floodway Zone Regulations shall be applicable.
- (2) The applicant for a proposed use, development or activity in floodplain soils areas shall have the opportunity to determine flood profiles and elevations, thereby identifying the floodway and flood fringe areas, in accordance with hydrologic and hydraulic engineering techniques as follows:
  - (a) The applicant shall provide sufficient documentation to demonstrate that his proposed activity, together with all other existing and anticipated development, uses, and activities, will not increase the water surface elevation of the one hundred (100) year flood more than one (1) foot at any point. The engineering principle of equal reduction of conveyance shall be used to make the determination of increases in flood heights.
  - (b) Hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently accepted technical concepts. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough technical review by the Borough. The Borough Council must approve the study.
- (3) The placement of any mobile home or manufactured home or manufactured home park in the floodplain soils area is prohibited.

**K. Anchoring, Elevation and Floodproofing Requirements.**

**(1) Residential Structures**

- (a) Within any AE Zone Area or Floodplain Soils Area, the lowest floor (including basement) of any new or substantially improved residential structure shall be at least 1½ feet above the base flood elevation.
- (b) The applicant shall provide the Borough Zoning Officer with a statement identifying the lowest floor elevation. The zoning officer shall keep a record of the submitted

statements identifying the lowest floor elevations for uses in floodplain areas.

- (c) The design and construction standards and specifications contained in the 2009 International Building Code (IBC) and in the 2009 International Residential Code (IRC) or the most recent revisions thereof and ASCE 24 and 34 PA Code (Chapters 401-405 as amended) shall be utilized.

(2) **Nonresidential Structures.**

- (a) Within any AE Zone Area or Floodplain Soils Area, the lowest floor (including basement) of any new or substantially improved nonresidential structure shall be at least 1½ feet above the base flood elevation, or be designed and constructed so that the space enclosed below the regulatory flood elevation:
    - i. is floodproofed so that the structure is watertight with walls substantially impermeable to the passage of water and,
    - ii. has structural components with the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
  - (b) The applicant shall provide the Borough Zoning Officer with a statement identifying the lowest floor elevation.
  - (c) The design and construction standards and specifications contained in the 2009 International Building Code (IBC) and in the 2009 International Residential Code (IRC) or the most recent revisions thereof and ASCE 24 and 34 PA Code (Chapters 401-405 as amended) shall be utilized.
- (3) Any structure, or part thereof (except for enclosures below the lowest floor), which will not be completely or adequately elevated, shall be designed and constructed to be completely or essentially dry in accordance with the standards contained in the publication entitled "Flood-Proofing, Regulations" (U.S. Army Corps of Engineers, June 1972, as amended March 1992 and from time to time or later revision), or some other equivalent standard, for that type of construction.
- (4) A document, certified by a registered professional engineer or architect, which states that the proposed construction or

development has been adequately designed to withstand the 100 year flood elevations, pressures, velocities, impact and uplift forces associated with the 100 year flood shall be submitted. Such statement shall include a description of the type and extent of floodproofing measures which have been incorporated into the design of the structure and/or the development; and will include elevations of the existing ground, the proposed finished ground, and the lowest floor.

(5) Fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters-the designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

- (a) A minimum of two openings having a total net area of not less than 1 square inch for every square foot of enclosed area subject to flooding shall be provided.
- (b) The bottom of all openings shall be no higher than one foot above grade.
- (c) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(6) The requirements of subsections (1) through (5) above shall not apply to fences in the AE Zone Areas or Floodplain Soils Areas.

(7) Anchoring:

- (a) All buildings and structures shall be firmly anchored in accordance with accepted engineering practices to prevent flotation, collapse, or lateral movement.
- (b) All air ducts, large pipes, storage tanks, and other similar objects or components located below the base flood elevation shall be securely anchored or affixed to prevent flotation.

L. **Special Requirements for Mobile Homes or Manufactured Homes.** No mobile home or manufactured home shall be permitted in the flood fringe area except as a nonconforming use which predates the enactment of this Chapter. Any new mobile homes or manufactured homes or mobile homes or manufactured homes placed in an existing manufactured home park

shall be anchored to resist flotation, collapse, or lateral movement by providing over-the-top and frame ties to ground anchors in accordance with the American National Standards as specified in the Standard for the Installation of Mobile Homes, including Mobile Home Park Requirements (CNFPA No.501 A-1974 CANISI A119.3-1975) as amended for Mobile Homes in Hurricane Zones or other appropriate standards such as, but not limited to, the following:

- (1) Over the top ties shall be provided at each of the four (4) corners of the mobile home, with two (2) additional ties per side at intermediate locations for units fifty (50) feet or more in length, and one (1) additional tie per side for units less than fifty (50) feet in length.
- (2) Frame ties shall be provided at each corner of the manufactured home, with five (5) additional ties per side at intermediate locations for units fifty (50) feet or more in length, and for four (4) additional ties per side for units less than fifty (50) feet in length.
- (3) All components of the anchoring system shall be capable of carrying a force of four thousand eight hundred (4,800) pounds.
- (4) The stands or lots shall be elevated on compacted fill, or on pilings so that the lowest floor of the manufactured home will be one and one-half (1.5) feet or more above the elevation of the one-hundred (100) year flood.
- (5) Adequate surface drainage shall be provided.
- (6) Adequate access for a hauler shall be provided.
- (7) Where pilings are used for elevation, the lots shall be large enough to permit steps; piling foundations shall be placed in stable soil no more than ten (10) feet apart; reinforcement shall be provided for pilings that will extend for six (6) feet or more above the ground level.

**M. Design and Construction Standards.**

- (1) **Fill.** If fill is used, it shall:
  - (a) Extend laterally at least 15 feet beyond the building line from all points.
  - (b) Consist of soil or small rock materials; sanitary landfills shall not be permitted.

- (c) Be compacted to provide the necessary permeability and resistance to erosion, scouring or setting.
  - (d) Be no steeper than one (1) vertical to two (2) horizontal, unless substantiated data justifying steeper slopes are submitted to, and approved by, the Zoning Officer and Borough Engineer.
  - (e) Be used to the extent to which it does not adversely affect adjacent properties.
- (2) **Drainage.** Storm drainage facilities shall be designed to convey the flow of stormwater runoff in a safe and efficient manner. The system shall insure proper drainage along streets, and provide positive drainage away from buildings. The system shall also be designed to prevent the discharge of excess runoff into adjacent properties.
- (3) **Water and Sanitary Sewer Facilities and Systems.**
- (a) All new or replacement water and sanitary sewer facilities and systems shall be located, designed and constructed to prevent the infiltration of flood waters.
  - (b) Sanitary sewer facilities and systems shall be designed to prevent the discharge of untreated sewage into flood waters.
  - (c) No part of any on-site sewage system shall be located within any identified floodplain area except in strict compliance with all state and local regulations for such systems. If any such system is permitted, it shall be located so as to avoid impairment to it, or contamination from it during a flood.
  - (d) The design and construction provisions of the UCC and FEMA #348, Protecting Building Utilities From Flood Damages and the International Private Sewage Disposal Code shall be utilized.
- (4) **Other Utilities.** All other utilities such as gas lines, electrical and telephone systems shall be located, elevated (where possible) and constructed to minimize the chance of impairment during a flood.

- (5) **Streets.** The finished elevation of all new streets shall be at least one (1) foot above the base flood elevation.
- (6) **Storage.** All materials that are buoyant, flammable, explosive or, in times of flooding, could be injurious to human; animal, or plant life, and not listed in §27-703.1.Q, “Development Which May Endanger Human Life,” shall be stored at or above the base flood elevation or floodproofed to the maximum extent possible.
- (7) **Placement of Buildings and Structures.** All buildings and structures shall be designed, located, and constructed so as to offer the minimum obstruction to the flow of water and shall be designed to have a minimum effect upon the flow and height of flood water.
- (8) **Electrical Components.**
  - (a) Electrical distribution panels shall be at least 3 feet above the base flood elevation.
  - (b) Separate electrical circuits shall serve lower levels and shall be dropped from above.
- (9) **HVAC Equipment.** Water heaters, furnaces, air conditioning and ventilating units, and other electrical, mechanical, or utility equipment or apparatus shall be elevated above the regulatory flood elevation.
- (10) **Fuel Supply Systems.** All gas and oil supply systems shall be designed to prevent the infiltration of flood waters into the system and discharges from the system into flood waters. Additional provisions shall be made for the drainage of these systems in the event that flood water infiltration occurs.
- (11) The applicant shall submit plans of all proposed buildings, structures and other improvements, drawn at suitable scale showing the following:
  - (a) The proposed lowest floor elevation of any proposed building, based upon National Geodetic Vertical Datum of 1929.
  - (b) The elevation of the 100 year flood.

- (c) If available, information concerning depths, pressures, velocities, impact and uplift forces and other factors associated with a 100 year flood.
- (d) Detailed information concerning any proposed floodproofing measures including the specific elevation to which such structures are floodproofed.

N. **Subdivision and Land Developments.** Whenever a subdivision, resubdivision or land development is submitted under the applicable subdivision and land development ordinance and any portion of the site lies within the floodplain areas, the following information shall be provided with each plan submission:

- (1) **Sketch Plan.** The Floodway, Floodplain Soils Areas, and AE Zone Areas shall be delineated on the plan. The Flood Map of Hulmeville Borough shall be used in identifying these areas.
- (2) **Preliminary Plan, Final Plan and Record Plan.** The floodway, Floodplain Soils Areas, and AE Zone Areas shall be delineated on each submitted plan. The Flood Map of Hulmeville Borough shall be used in identifying, these areas. The information included in the Flood Profiles and flood data which accompany the Hulmeville Borough Zoning Ordinance shall be used for engineering purposes to determine the extent of flooding on the property proposed for subdivision, resubdivision or land development.
- (3) Utilities shall be raised above the regulatory flood elevation and/or shall be resistant to flooding. Water and sewer systems shall be designed to minimize the infiltration of flood waters into the systems and to prevent discharges of wastes into the flood waters.
- (4) The Borough Council or the reviewing Planning Commission shall require the applicant to perform an on-site investigation and tests to determine the extent of floodplain or alluvial soils in areas designated as Urban Land (Ub) in the Official Soil Survey provided by the U.S. Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov/>). The investigation and tests shall be performed by a qualified soils scientist and shall be reviewed by the Borough Engineer for accuracy of the soils locations, limitations and field conditions. Areas found to contain floodplain or alluvial soils shall conform to the regulations pertaining to Floodplain Soils Areas contained in this Ordinance and other applicable ordinances and codes.

- (5) The Borough Council and Planning Commission shall review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.

O. **Variances.** If compliance with any of the requirements of this Section would result in an exceptional hardship for a prospective builder, developer, or landowner, the Zoning Hearing Board may, upon request, grant relief from the strict application of the requirements in addition to the requirements set forth by the Pennsylvania Municipalities Planning Code. Requests for variances shall be considered by the Zoning Hearing Board in accordance with the following:

- (1) No variance shall be granted for any construction, development, use or activity within the Floodway Area that would cause any increase in the one hundred (100) year flood elevation.
- (2) No variance shall be granted for any of the requirements pertaining to Development Which May Endanger Human Life or Prohibited Activities.
- (3) If granted, a variance shall involve only the least modification necessary to provide relief.
- (4) In granting any variance, the Zoning Hearing Board shall attach whatever reasonable conditions and safeguards it considers necessary in order to protect the public health, safety, and welfare, and to achieve the objectives of the ordinance.
- (5) Whenever a variance is granted, the Zoning Hearing Board shall notify the applicant in writing that:
  - (a) The granting of the variance may result in increased premium rates for flood insurance.
  - (b) Such variances may increase the risks to life and property.
- (6) In reviewing any request for a variance, the Zoning Hearing Board shall consider, but not be limited to, the following:
  - (a) That there is good and sufficient cause.
  - (b) That failure to grant the variance would result in exceptional hardship to the applicant.



- (c) That the granting of the variance will not result in an unacceptable or prohibited increase in flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on, or victimize the public, or conflict with any other applicable state statute or regulation, or local ordinance or regulation.
- (7) A complete record of all variance, requests and related actions shall be maintained by the Zoning Hearing Board. In addition, a report of all variances granted during the year shall be included in the annual report to the FEMA.
- (8) Notwithstanding any of the above, however, all structures shall be designed and constructed so as to have the capability of resisting the 100 year flood.

**P. Flood Map Interpretation.**

- (1) Because flood waters follow the precise topography of the land and because of the impracticality of showing precise topography on a small-scale map, the Flood Profiles which accompany the most recent Flood Insurance Study are hereby incorporated in this Chapter and shall be considered controlling for the purpose of determining the extent of the floodplain area on a particular parcel of land.
- (2) Where interpretation is needed concerning the exact location of any boundary of the floodplain area, the Zoning Hearing Board shall make the necessary determination after consulting with the Borough Engineer.

**Q. Development Which May Endanger Human Life.** The provisions of this §27-703.1.Q shall be applicable, in addition to any other applicable provisions of this Chapter, or any other ordinance, code or regulation.

- (1) **Production and Storage of Hazardous Materials.** In accordance with the Pennsylvania Floodplain Management Act, and the regulations adopted by the Department of Community and Economic Development as required by the Act, any new or substantially improved structure which will be used for the production or storage of any activity requiring the maintenance of a supply (more than 550 gallons or other comparable volume, or any amount of radioactive substance) of any dangerous materials

or substances, including but not limited to the following, on the premises, shall not be permitted in any identified floodplain area:

- (a) Acetone
- (b) Ammonia
- (c) Benzene
- (d) Calcium carbide
- (e) Carbon disulfide
- (f) Celluloid
- (g) Chlorine
- (h) Hydrochloric acid
- (i) Hydrocyanic acid
- (j) Magnesium
- (k) Nitric acid and oxides of nitrogen
- (l) Petroleum products (gasoline, fuel, oil, etc.)
- (m) Phosphorus
- (n) Potassium
- (o) Sodium
- (p) Sulphur and sulphur products
- (q) Pesticides (including insecticides, fungicides and rodenticides)
- (r) Radioactive substances, insofar as such substances are not otherwise regulated

Q. Prohibited Activities in the Floodplain. The following activities shall be prohibited within any identified floodplain area or floodplain soils area of the Borough:

- (1) The commencement of any of the following activities, or the construction, enlargement, or expansion of any structure used, or intended to be used, for any of the following activities:
  - (a) hospitals
  - (b) nursing homes
  - (c) jails or prisons
  - (d) emergency services
  - (e) kennels
- (2) The commencement of, or any construction of a new mobile or manufactured home park or mobile or manufactured home subdivision, or substantial improvement to an existing mobile or manufactured home park or mobile or manufactured home subdivision.

**§27-704. Transportation Impact Study and Water Resources Impact Study.**

1. Transportation Impact Study.

A. Purpose.

A Transportation Impact Study shall be required for all subdivisions and land developments meeting one or more of the criteria below in Subsection B. This study will enable Hulmeville Borough to assess the impact of a proposed development on the transportation system, both highways and public transportation, in the Borough. The purpose of the impact study is to insure that proposed developments do not adversely affect the transportation network and to identify any traffic problems associated with access between the site and the existing transportation network. The study's purpose is also to delineate solutions to potential problems and to present improvements to be incorporated into the proposed development. The study shall assist in the protection of air quality, conservation of energy and encouragement of public transportation use.

B. Applicability.

(1) A Transportation Impact Study shall be submitted for all subdivisions and land developments that will meet one or more of the following criteria:

- (a) Residential: Fifteen (15) or more dwelling units or lots.
- (b) Non-Residential Subdivision: Five (5) lots or more.
- (c) Commercial: A commercial building or buildings consisting of 15,000 square feet or more of floor area.
- (d) Office: A development consisting of 15,000 square feet or more of floor area.
- (e) Industrial: Any industrial development consisting of 5 or more lots, or 15,000 square feet or more of floor area, or having more than 35 employees (immediately or future) with access from the site onto a Borough street, or with an expected daily traffic flow of more than 150 vehicle trips per day with site access onto a Borough street.

- (f) Institutional: Any medical, educational, or institutional development consisting of 15,000 square feet or more of floor area.
    - (g) Other: All other uses that propose to generate 250 or more trips.
  - (2) The number of trips shall be determined through the use of the Institute of Transportation Engineers (ITE), "Trip Generation", latest edition.
  - (3) Borough Council, at its discretion, may require any other subdivision or land development to be accompanied by a Transportation Impact Study; provided, however, that Borough Council notifies the applicant within thirty (30) days following the Planning Commission's first meeting to consider the proposal. Such a notification shall specify the reason for the requirement, citing the proposal's particular location or existing problems or type of use. Borough Council may, at its discretion waive the requirement of a Transportation Impact Study when it determines that such a study is unnecessary.
- C. The Transportation Impact Study shall be prepared by a qualified traffic engineer and/or transportation planner with previous traffic study experience. The procedures and standards for the Transportation Impact Study are set forth in Appendix B.

2. Water Resources Impact Study.

- A. A Water Resources Impact Study shall be required for all subdivision and land developments meeting one or more of the criteria below in Subsection B. The purpose of the study is to determine if there is an adequate water supply to serve the proposed use. Any proposed subdivision or land development which does not provide an adequate water supply for use shall not be approved by the Borough and shall be cause for denial of the subdivision or land development plans.
- B. Applicability.
  - (1) A Water Resources Impact Study shall be submitted for all subdivisions and land developments that will meet one or more of the following criteria:
    - (a) Residential: Fifteen (15) or more dwelling units or lots.
    - (b) Non-Residential Subdivision: Five (5) lots or more.

- (c) A zoning permit application or land development which will require public water of more than 4,500 gallons per day.

C. Report Requirements. The Water Resources Impact Study shall be prepared by a Professional Engineer registered in the Commonwealth of Pennsylvania and shall include those requirements set forth in §27-1301.C.

**§27-705. General Open Space Standards.**

1. Single-family cluster developments, traditional neighborhood developments and other uses with open space requirements shall meet the open space standards of the Zoning Chapter. The plan shall contain or be supplemented by such material as required to establish the method by which open space shall be perpetuated, maintained, used, and administered. The plan and other materials shall be construed as a contract between the land owner(s) and the municipality, and shall be noted on all deeds.
2. Any property or parcel, including open space as part of previous subdivision within the Borough, which is subject to a restriction against further subdivision, whether by notation on a subdivision plan or restriction in a deed, shall not be further subdivided or developed, regardless of an intervening zoning or other ordinance change.
3. Where open space is designated on a subdivision plan or is to be restricted from further subdivision or development by a restriction in a deed and/or by a note on a subdivision plan, the plan shall contain the following statement: “Open space which is designated on this subdivision plan is restricted from further subdivision and development by a restriction in a deed or by this note, regardless of an intervening or other ordinance change.”
4. All subdivisions and residential developments with open space requirements shall provide internal usable open space that shall be accessible to residents of the development. For all developments of 25 dwellings or more, a minimum area of 800 square feet per dwelling unit shall be provided in one or more central community greens accessible to residents of the development. A green or common area shall have a minimum contiguous area of at least 20,000 square feet.
5. Where open space is designated on a subdivision plan, an open space easement shall be granted to the Borough over such open space assuring the open space’s protection from future subdivision, development or use inconsistent with its preservation as open space in accordance with §27-707.

**§27-706. Layout of Open Space.**

The open space shall be laid out in accordance with the best principles of site design. It is intended that the open space shall be as close to all residences as possible, with green ways leading to major recreation spaces. Major recreation areas shall be located to serve all residents. The open space is most needed in areas of highest density.

**§27-707. Open Space Designation.**

1. The subdivision plans shall further designate the use of open space, the type of maintenance to be provided, and a planting plan or schedule. In designating use and maintenance, the following classes may be used:
  - A. **Lawn.** A grass area with or without trees which may be used by the residents for a variety of purposes and which shall be mowed regularly to insure a neat and tidy appearance.
  - B. **Recreation Area.** An area designated for a specific recreation use but not limited to tennis, swimming, shuffle board, playfield and tot lot. Such areas shall be maintained so as to avoid creating a hazard or nuisance and shall perpetuate the proposed use.
2. Minimum width buffer yards do not count as open space. However, required open space may be used to meet the requirements for buffers where the open space has a minimum contiguous area of four acres and a minimum dimension of 200 feet.
3. Required open space shall not include any area that is required by this Chapter for minimum yards or setbacks or building separations.
4. Stormwater facilities or basins (retention or detention) may be located in open space but the land area of the stormwater facility and/or basin, as defined by the extent of the stormwater or drainage easement, may not be used to meet the minimum open space requirements for the use or district.
5. Open space whose purpose or resulting effect is to enhance the private yards of individual lots shall not be considered to meet the ordinance requirements for open space and shall not be counted in the calculation of minimum required open space. Narrow or irregular pieces of land which serve no public open space function or which are remnants leftover after the lots, streets, and parking areas have been laid out shall not be considered to meet the ordinance requirements for open space and shall not be counted in the calculation of minimum required open space.
6. The easement area for any underground utility pipelines shall not be used to meet open space requirements.

**§27-708. Open Space Performance Bond.**

The developer shall provide designated planting and recreation facilities within the open space areas. A performance bond or other securities shall be required to cover costs of installation in accordance with provisions of the Subdivision and Land Development Ordinance [Chapter 22].

**§27-709. Ownership and Preservation of Open Space.**

Any of the following methods may be used to preserve, own, or maintain open space: condominium, homeowners' association, dedication in fee simple to Hulmeville Borough or to a County or State government, dedication of easements to a municipal government or conservation organization, transfer to a private conservation organization, or dedication of development rights. The following specific requirements are associated with each of the various methods:

- A. **Condominium.** The open space may be controlled through the use of condominium agreements. Such agreements shall be in conformance with the Pennsylvania Uniform Condominium Act. All open space land shall be held as “common element.” Such land shall not be eligible for sale to another party except for transfer to another method of ownership permitted under this §27-709, and then only where there is no change in the open space ratio or the open space designated on the record plans for the development.
- B. **Homeowners Association.** The open space may be held in common ownership by a homeowners association. Such land shall not be eligible for sale to another party except for transfer to another owner permitted under this section, and then only where there is no change in the open space ratio or the open space designated on the record plans for the development.
- C. **Fee-simple Dedication.** The municipality may, but shall not be required to, accept any portion or portions of the open space, provided: (a) such land is freely accessible to the public, (b) there is no cost **of acquisition to** the Borough involved, (c) the municipality agrees to and has access to maintain such lands; and (d) the open space shall be in an acceptable condition to the Borough at the time of transfer with regard to size, shape, location, condition, and improvement.
- D. **Dedication of Development Rights.** The Borough or County may accept but shall not be required to accept, title to the development rights or easements to any portion or portions of the open space. In such cases, the land remains in the ownership of the individual, condominium, or homeowners association while the development rights are held in public ownership. The County shall accept ownership only in accordance with

the provisions of Act 442 and county plans. The municipality may accept such land as it sees fit. In either case, there shall be no cost to County or municipality for acquisition or maintenance. The municipality may require this method where it deems this the most appropriate way of maintaining land in open space, particularly in single-family cluster developments.

- E. **Transfer to a Private Conservation Organization.** With permission of the Borough, an owner may transfer either the fee simple title, with appropriate deed restrictions running in favor of the Borough, or easements, to a private, nonprofit organization, among whose purposes it is to conserve open space land and/or natural resources provided that:
- (1) the organization is acceptable to the Borough and is a bona fide conservation organization with perpetual existence;
  - (2) the conveyance contains appropriate provision for transfer to the Borough in the event that the organization becomes unwilling or unable to continue carrying out its functions; and
  - (3) a maintenance agreement acceptable to the Borough is entered into by the developer and the organization.
- F. **Deed Restrictions.** Natural resource protection land or open space, as required by this Ordinance, may be held in the ownership of an individual property owner(s). This form of ownership of open space will be subject to the following requirements:
- (1) It may be used only if approved by Borough Council.
  - (2) Restrictions meeting Borough specifications must be placed in the deed and through conservation easement for each property that has natural resource protection areas within its boundaries. The restrictions shall provide for the continuance of the resource protection areas in accordance with the provisions of this ordinance;
  - (3) It will be clearly stated in the individual deeds and in the easement documents that the maintenance responsibility lies with the individual property owner.
- G. Multifamily or Townhouse Developments as part of Use B4 Traditional Neighborhood Development. In the case of multifamily or townhouse residential uses, the open space land may be in the same ownership as that of the development provided that the land is deed-restricted to ensure its protection and continuance and that a maintenance agreement suitable to the Borough is provided. For any of these options the Borough may



accept, but is not required to accept, an easement to the open space land in the development.

**§27-710. Noise.**

1. **Purpose.**

The purpose of this section is to protect the citizens of the Borough from Noise Disturbances. Although it is recognized that in present society certain amounts of noise are unavoidable, the citizens of Hulmeville Borough are entitled to be protected from unnecessary disturbance, annoyance, or injury from sound.

2. **Terminology and Definitions** - For the purposes of this section, the following words and phrases shall have the meanings respectively ascribed to them by this section:

**A-weighted decibel**—The sound level, in decibels, measured with a sound level meter using the A-weighting network or scale as specified in the ANSI S1.4-1983 (specification for sound level meters). The level so read shall be postscripted dB(A) or dBA.

**ANSI**—The American National Standards Institute, Inc., New York, New York.

**Chief**—The Chief of Police of Hulmeville Borough or his authorized officers.

**Daytime**—The local time of day between the hours of 7:00 a.m. and 10:00 p.m. weekdays and from 9:00 a.m. to 10:00 p.m. on Saturdays, Sundays and legal holidays unless otherwise specified.

**Decibel**—A unit that describes the sound pressure level or intensity of sound. The sound pressure level in decibels is twenty (20) times the logarithm to the base ten (10) of the ratio of the pressure of the sound in microbars to a reference pressure of 0.0002 microbar; abbreviated dB.

**Nighttime**—Those times excluded from the definition of daytime.

**Noise**—Any steady-state or impulsive sound occurring on either a continuous or intermittent basis that annoys or disturbs humans or that causes or tends to cause an adverse psychological or physiological effect on humans.

**Noise disturbance**—any sound which:

- (1) Endangers or injures the safety or health of humans; or
- (2) Annoys or disturbs a reasonable person of normal sensitivities; or
- (3) Endangers or injures personal or real property; or

- (4) Exceeds the applicable maximum permissible sound levels as they appear in the table in Section 4.

**Sound level meter**—An instrument to measure sound pressure levels that meets or exceeds performance standards for a Type 2 meter as specified by the ANSI.

**Sound pressure level**—The intensity in decibels (dB) of a sound.

**Zoning district classification**—the scheme of land use classification contained in the Hulmeville Borough Zoning Ordinance, as amended from time to time.

3. **Noise Sensitive Zones.** Any property may constitute a “Noise Sensitive Zone” if established by resolution or Borough Council at a future time. The measure of the dBA sound level at the boundary line of any such “Noise Sensitive Zone” shall comply with the general sound standard as set forth in this section except that all dBA ratings shall be lowered by a factor of 15 dBA for computation purposes.
4. **Maximum Permissible Sound Levels.** Except as otherwise provided, any noise which emanates from any operation, activity or source and which exceeds the maximum permissible sound levels established in this section below is hereby prohibited. Such levels shall be measured at the property boundary of the sound source or at any point within any other property affected by the noise. When a noise source can be identified and its noise measured in more than one (1) zoning district classification, the limits of the most restrictive classification shall apply.

**A. Maximum Permissible Sound Pressure Levels**

	<b>Zoning District(s)</b>	<b>Classification Maximum dBA (Daytime/Nighttime)</b>
Commercial	C Commercial District	60/50
Industrial	I Industrial District	70/60
	LIC Limited Industrial Conservation District	60/50
Residential	R-1 Residential District	60/50
	R-2 Residential District	60/50
	R-3 Residential District	60/50

- B. Heating and cooling systems, including but not limited to air conditioners and heat pumps, shall not be subject to the night levels enumerated above.

- C. Any person, with lawfully obtained building and/or land development permits, who between the hours of 7:00 a.m. and 7:00 p.m. weekdays and between the hours of 9:00 a.m. and 6:00 p.m. on Saturdays, Sundays and legal holidays operates or causes to be operated any equipment used in construction, repair, alteration or demolition work on buildings, structures, alleys or appurtenances thereto in the outdoors in any residential district within one hundred (100) yards of a lawfully occupied dwelling shall not be subject to the levels enumerated above.
  - D. Persons performing construction of public projects, repair or maintenance work for such projects or persons performing work for private or public utilities for the repair of facilities or restoration of services shall not be subject to the levels enumerated above.
5. **Prohibitions.** The following acts are violations of this Chapter:
- A. Operating or causing to be operated between the hours of 7:00 p.m. and 7:00 a.m. on weekdays and between the hours of 6:00 p.m. and 9:00 a.m. on Saturdays, Sundays and legal holidays any equipment used in construction, repair, alteration or demolition work on buildings, structures, alleys or appurtenances thereto in the outdoors in any residential district (as above set forth) within one hundred (100) yards of a lawfully occupied dwelling. This section shall not apply to construction of public projects, the repair or maintenance work performed on such projects or work performed by private or public utility companies for the repair of facilities or restoration of services.
  - B. Operating or permitting the operations of any mechanically powered saw, drill, sander, grinder, lawn or garden tool, snow blower or similar device (used outdoors) between the hours of 9 PM and 7 AM on weekdays and between the hours of 9 PM and 9 AM on Saturdays, Sundays, and legal holidays in such a manner as to create a noise disturbance at any time across a real property line or within a “Noise Sensitive Zone.”
  - C. Repairing, rebuilding, modifying, testing or operating any motor vehicle, motorcycle, boat, recreational vehicle or other powered motor vehicle between the hours of 10 PM and 7 AM in such a manner as to create a noise disturbance at any time across a real property line or within a “Noise Sensitive Zone.”
  - D. Operating or permitting the operation of mechanically powered equipment or trucks used in waste management, waste disposal, trash collection or brush disposal between the hours of 10 PM and 6 AM in such a manner as to create a noise disturbance at any time across a real property line or within a “Noise Sensitive Zone.”

- E. Extended parking of trucks with idling motors or other motor vehicles for more than two (2) hours in a twenty-four hour period on any property or public or private roadway within the Borough Limits constitutes a sound disturbance in violation of this Chapter regardless of the sound level created and no testing is required. This section shall not apply to the operation of emergency vehicles.
- F. Using, operating or causing to be operated mechanical loud speakers or other sound amplification devices on trucks or other moving vehicles for the purpose of commercial advertising or attracting the attention of the public during the nighttime. The use of such at all other times shall be subject to the following conditions:
  - (1) The only sounds permitted are music or human speech.
  - (2) Sound shall not be issued or devices shall not be used within one hundred (100) yards of hospitals, schools, or churches.
- G. Using, operating or causing to be operated mechanical loud speakers or other sound amplification devices in commercial establishments for the purpose of commercial advertising or attracting the attention of the public during the nighttime when such sound, as measured at the property line of the premises, exceeds the maximum permissible sound pressure levels for the zoning district from which the sound emanates as set forth in §27-710.4. above.
- H. Operating or permitting to be operated any powered model vehicle in the outdoors during the nighttime.
- I. The playing of radio, phonographs, television, tape or disc players, musical instruments or drums, sound amplifiers or similar devices which produce, reproduce or amplify sound in such a manner as to create a noise disturbance.
- J. Talking, yelling, shouting, screaming, singing, or any other form of human sounds produced by any person or group of people that creates a noise disturbance.
- K. Noise From Animals
  - (1) It shall be unlawful for any person to allow within the Borough prolonged or intense barking or other harsh or excessive noises to be made by any animal under his ownership or control, at any time, so as to disturb the quiet, comfort or repose of one (1) or more members of the community.

- (2) For the purpose of this section, a harsh or excessive animal noise is one that disturbs the quiet, comfort or repose of a reasonable person with normal sensitivities.
- (3) For the purpose of this section, a person shall be deemed to have "allowed" his animal to bark or create other harsh or excessive noises, if he has once been put on notice by the Borough Police Department or the Zoning Officer, upon the complaints of two (2) persons who are not members of the same household that the animal is disturbing one (1) or more members of the community and he thereafter fails to confine such animal inside his dwelling unit or other enclosed structure or take similar action calculated to terminate such disturbance. It shall not be necessary for the Borough Police Department or the Zoning Officer to issue a new notice for each repeated occurrence.

## **6. Measurement Procedures.**

The measurement of sound or noise pursuant to this Chapter shall be as follows:

- A. The measurement of sound or noise shall be made with sound level meters Type 1 or Type 2 that meet the standards prescribed by the ANSI. The instruments shall be maintained in calibration and good working order. A calibration shall be made of the system at the time of any noise measurement. Measurements recorded shall be taken so as to provide a proper representation of the noise source. The microphone during measurement shall be positioned so as not to create any unnatural enhancement or diminution of the measured noise. A windscreen for the microphone shall be used when required. A minimum of three (3) sound level readings will be taken. The geometric mean of these readings will be used as the average sound level. If the background noise is equal to the levels set forth in §27-710.4 above, three (3) dB shall be subtracted out of the average sound level.
- B. The slow meter response of the sound level meter shall be used to determine that the average amplitude has not exceeded the dBA readings or the limiting noise spectra set forth in §27-710.4 above.
- C. Unless otherwise specified, the measurement shall be made at the property boundary on which such noise is generated, or at any point within the receiving property affected by the noise.
- D. For any source of sound which emits an impulsive sound, the excursions of sound pressure level shall not exceed twenty (20) dBA over the maximum sound level limits set forth §27-710.4 above, provided that in no case shall they exceed eighty (80) dBA, regardless of time of day or

night or receiving land use, using the “fast” meter characteristic of a Type II meter, meeting the American National Standards Institute specifications SI.4- 1983.

**7. Exceptions.**

The maximum permissible sound levels established in §27-710.4 and the general prohibitions set forth in §27-710.5 hereof shall not apply to any of the following noise sources:

- A. All emergency vehicles and implements, such as but not limited to fire-fighting equipment, law enforcement equipment, ambulance/medical equipment and any other equipment such as may be needed on short notice to protect personnel and/or property or secure the general welfare, are exempt from the noise control provisions of this Chapter.
- B. The work to provide electricity, water or other utilities when public health or safety is involved.
- C. Licensed game hunting activities on property where such activities are authorized.
- D. Agriculture - All farming and/or agricultural vehicles and implements are exempt from the noise control provisions of this Chapter.
- E. The noise of aircraft flight operations.
- F. Public celebrations specifically authorized by the Borough.
- G. Surface carriers engaged in commerce by railroad.

**8. Variances.**

The Hulmeville Borough Zoning Hearing Board is empowered to hold public hearings and to grant variances from the terms of this Chapter (Pursuant to the procedure established in Section 1205 and in addition to the procedures set forth by the Pennsylvania Municipalities Planning Code, as amended). A variance shall be granted only if the applicant can establish that a hardship will be created if any of the following applies:

- A. The source of the sound violation cannot be controlled so as to be brought into conformance with this Chapter by any reasonable method;
- B. The property in question cannot be used without the source of noise violation, or that the source of the noise violation is necessary to prevent a taking of the property without compensation and;

- C. All reasonable steps have been taken to reduce the noise violation to the lowest level possible.
9. **Applicability.** When any two or more provisions of the regulations found in this §27-710 apply to any sound source, the most restrictive section shall be applicable to that source.

**§27-711. Smoke.**

No smoke shall be emitted from any chimney or other source, of visible gray opacity greater than No. 1 of the Ringlemann Smoke Chart as published by the U.S. Bureau of Mines; except that smoke of a shade not darker than No. 2 on the Ringlemann Chart may be emitted for not more than four minutes in any 30 minute period.

**§27-712. Dust, Fumes, Vapors and Gases.**

1. The emission of dust, dirt, fly ash, fumes, vapors, or gases which can cause any damage to human health, to animals, or vegetation, or to other forms of property, or which can cause any soiling or staining of persons or property at any point beyond the lot line of the use creating the emission, is herewith prohibited.
2. No emission of liquid or solid particles from any chimney or other source shall exceed 0.3 grains per cubic foot of the covering gas at any point beyond the lot line of the use creating the emission. For measurement of the amount of particles in gases resulting from combustion, standard correction shall be applied to a stack temperature of 500 °F and 50% excess air in stack at full load.

**§27-713. Heat.**

No use shall produce heat perceptible beyond its lot lines.

**§27-714. Odor.**

No use shall emit odorous gases or other odorous matter in such quantities as to be offensive at any point on or beyond its lot lines. The guide for determining such quantities of offensive odors shall be the fifty percent response level of Table I (Odor Thresholds in Air), "Research on Chemical Odors: Part 1 – Odor Thresholds for 53 Commercial Chemicals," October, 1968, Manufacturing Chemists Association, Inc., Washington, D.C.

**§27-715. Glare.**

No use shall produce a strong light or reflection of a strong light greater than 35 foot candles beyond its lot lines.

**§27-716. Vibrations.**

No use shall cause earth vibrations or concussions in excess of the standards outlined below, with the exception of that vibration produced as a result of construction activity. The standards below are as set forth in the Table of Frequency Amplitude Relations. Vibrations shall be expressed as displacement in inches and shall be measured with a standard three component measuring system, which is a device for recording the intensity of any vibration in three mutually perpendicular directions.

**Frequency Amplitude Relations**

<b>Frequency of Ground Motion in Cycles per Second</b>	<b>Maximum Amplitude of Ground Motion in Inches no more than</b>
Up to 10	0.0305
20	0.0153
30	0.0102
40	0.0076
50	0.0061
60	0.0051

**§27-717. Buffer Yards.**

A landscaped buffer yard shall be provided and maintained between any nonresidential use which borders a residential use or district (R-1, R-2, and R-3) and between any industrial use which borders a street, a non-industrial use, or a non-industrial district (R-1, R-2, R-3, and C). The Borough Council may modify buffer requirements between nonresidential uses and residential uses where appropriate to accommodate intended mixed use areas. Where specified in §27-406, Use Regulations, buffer yards will be required around particular uses. These uses shall hereafter not be established, nor shall existing uses be expanded unless the following buffer yard regulations are met:

1. The buffer yard shall be measured from the district boundary line, lot line, or from the near street line where a street serves as the district boundary line. Buffer yards shall not be within an existing or future street right-of-way and shall be in addition to that right-of-way.
2. A ten foot (10') wide buffer yard shall be required unless otherwise indicated in this Chapter. Where an industrial use borders a street, a non-industrial use or a non-industrial district, the buffer yard shall be thirty feet (30') in width.
3. The buffer yard may be coterminous with a required front, side or rear yards and in case of conflict, the larger yard requirements shall apply.
4. Any portion of the buffer yard which is not used for the screen planting (See Subsection (5) below) shall be planted with grass seed, sod or ground cover, and shall be maintained and kept clean of all debris, rubbish, weeds and tall grass more than 12 inches in height.



5. The buffer yard shall be a landscaped area free of any principal or accessory building or structures, manufacturing or processing activity, outdoor storage, or vehicular parking. No driveways or streets shall be permitted in the buffer yards except at points of ingress or egress provided it crosses the buffer with the minimum possible displacement of buffer plantings.
6. Screen Planting. All buffer yards shall include a dense screen planting of trees and shrubs, or other plant materials, or both, to the full length of the lot line to serve as a barrier to visibility, air-borne particles, glare and noise. Such screen planting shall be in accordance with the following requirements.
  - A. Plant materials used in the screen planting shall be at least 4 feet in height when planted and be of such species as will produce, within two years, a complete visual screen of at least 8 feet in height.
  - B. The screen planting shall be maintained permanently by the landowner, and any plant material which does not live shall be replaced within one year.
  - C. The screen planting shall be so placed that at maturity it will not be closer than 3 feet from any street or property line.
  - D. In accordance with the provisions of §27-603, a clear-sight triangle shall be maintained at all street intersections and at all points where private accessways intersect public street.
  - E. The screen planting shall be broken only at points of vehicular or pedestrian access.
  - F. The dense screen planted portion of the buffer yard shall be mulched to control weeds and erosion and shall be maintained and kept clean of debris, rubbish, weeds and other growth.
  - G. In circumstances where it is impractical for a screen planting to meet all the requirements of this Section or would create an undue hardship, the Borough Council may modify the requirements or approve acceptable alternatives which shall satisfy the spirit, objectives, and intent of the screen requirements.
8. Equipment Screening. All mechanical and electrical equipment not enclosed in a building shall be fully screened from view from any point from a public street or an adjacent residential use in a manner compatible with the architectural and landscaping style of the lots so that it blends with the landscape.

9. Planting Requirements. The standards below indicate the amount of plant material that is required per linear foot of property line. Plantings shall be placed within the minimum width of the buffer area. The planning commission may permit staggering or grouping of plant materials provided a satisfactory buffer is achieved.

WIDTH OF PLANTING SCREEN WITHIN THE BUFFER YARD	REQUIREMENTS (where two options are provided, applicant may choose one within the category)
10 feet (for 10-foot buffer yard)	Shrubs with a planted minimum height of 5 feet shall be planted, with shade trees interspersed, in a continuous band with a spacing not exceeding 5 feet on center for shrubs and 30 feet on center for trees.
Minimum 15 feet (for 20-foot buffer yard)	(1) 1 canopy tree per 40 feet; plus 1 evergreen tree per 60 feet  OR (2) 1 flowering tree per 40 feet; plus 1 evergreen tree per 60 feet
Minimum 25 feet (for 30-foot buffer yard)	(1) 1 canopy tree per 40 feet; plus 1 flowering tree per 60 feet; plus 1 evergreen tree per 60 feet  OR (2) 1 canopy tree per 40 feet; plus 1 flowering tree per 60 feet; plus 1 hedge on lot line (3-foot centers except as noted in Section 27-717.10 below)  OR (3) 1 flowering tree per 40 feet; plus 1 evergreen tree per 25 feet

10. Plant Materials List. In particular, approved plant materials for buffer yard planting include the following:

Canopy Trees (2 inches caliper minimum)

Acer ginnala - Amur Maple

Acer rubrum - Red Maple

Acer saccharum - Sugar Maple

Betula alba - European White Birch

Fagus grandifolia - American Beech

Fagus sylvatica - European Beech

Ginkgo biloba - Gingo (male only)

Gleditsia tricanthos inermis - Thornless Honeylocust

Liquidamber styraciflua 'Rotundiloba' - Sweet Gum

Liriodendron tulipifera - Tulip Tree

Phillondendron amureuse - Amur Cork Tree

Plantanus acerifolia - London Plane Tree  
Quercus alba - White Oak  
Quercus borealis - Red Oak  
Quercus coccinea - Scarlet Oak  
Quercus palustris - Pin Oak  
Quercus phellos - Willow Oak  
Robina pseudoacacis inermis - Thornless Black Locust  
Sophora japonica - Japanese Pagodatree  
Tilia -Linden - all species hardy to the area  
Zelkova serata - Japanese zelkova

Flowering Trees (2 inches caliper minimum)

Amelanchier canadensis - Shadblow Serviceberry  
Cornus Florida - Flowering Dogwood  
Cornus kousa - Kousa Dogwood  
Cornus mas - Cornelian Cherry  
Crataegus phaenopyrum - Washington Hawthorn  
Hamamelis vernalis - Vernal Witch Hazel  
Hamamelis virginiana - Common Witch Hazel  
Koelreuteria paniculata - Golden Rain Tree  
Laburnum vossii - Goldenchain  
Magnolia soulangeana - Saucer Magnolia  
Magnolia virginiana - Sweetbay Magnolia  
Malus baccata - Siberian Crab  
Malus floribunda - Japanese Flowering Crab  
Malus hopy - Hopy Red-Flowering Crab  
Oxydendrum arboreum – Sourwood  
Prunus cerasifera - Thunder Cloud Purple Plum  
Prunus kwanzan - Kwanzan Cherry  
Prunus yedoensis - Yoshino Cherry  
Viburnum dentatum - Arrowood Viburnum  
Viburnum lantana - Wayfairingtrees Viburnum

Evergreen Trees (4 feet high minimum)<sup>14</sup>

Ilex opaca - American Holly  
Picea abies - Norway Spruce  
Picea omorika - Serbian Spruce  
Picea pungens - Colorado Spruce  
Pinus nigra - Austrian Pine  
Pinus strobus - White Pine  
Pseudotsuga menziesii - Douglas Fir  
Tsuga canadensis - Canada Hemlock

Hedge (4 feet high minimum)

Acer campestre - Hedge Maple

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<sup>14</sup> It is recommended that two or more species of evergreen trees be used in a buffer yard.

*Crataegus intricata* - Thicket Hawthorn  
*Forsythia intermedia* - Border Forsythia  
*Syringa chinensis* - Chinese Lilac  
*Syringa vulgaris* - Common Lilac  
*Juniperus virginiana* - Upright Juniper  
*Pinus strobus* - White Pine (1 per 5 feet)  
*Pyracantha coccinea lalandi* - Laland Firethorn  
*Taxus cuspidata* - Upright Yew  
*Taxus hicksi* - Hicks Yew  
*Tsuga canadensis* - Canadian Hemlock (1 per 5 feet)  
*Thuja occidentalis* - American Arborvitae (1 per 5 feet)  
*Viburnum alatus* – Viburnum

Shrubs (4 feet high minimum)

*Hamamelis vernalis* - Vernal Witch Hazel  
*Hamamelis virginiana* - Common Witch Hazel  
*Ilex verticillata* - Winterberry  
*Viburnum dentatum* - Arrowwood Viburnum  
*Viburnum lantana* - Wayfaring Tree Viburnum

11. Prior to the issuance of any zoning permit, complete plans showing the arrangement of all buffer yards and the placement, species and size of all materials, and the placement, size, materials, and type of all fences placed in such buffer yard, shall be reviewed by the Zoning Officer to ascertain that the plans are in conformance with the terms of this Chapter.
12. Visual Screen for Outdoor Trash Collection Stations.
  - A. A buffer wide enough to accommodate a fence and plantings abutting the fence, as described below, is required.
  - B. A solid fence shall be provided and shall be placed around the designated trash collection area. The fence height shall be adequate to provide a complete visual screen from adjoining properties but shall be not less than 6 feet in height. Fence details shall be provided with the landscape plan.
  - C. Along the exterior face of the fence there shall be a row of evergreen shrubs and/or evergreens pruned in a hedging habit planted at a rate to obscure the appearance of the fencing after a five-year growing period. Minimum shrub and upright habit evergreen height at planting shall be four feet and pruned when necessary to maintain an appearance of a uniform screen.
  - D. Plantings shall be located three feet on center. Suggested screen plantings for trash collection areas are:

*Juniperus virginiana* – Upright Juniper  
*Pyracantha coccinea lalandi* – Laland Firethorn  
*Taxus cuspidata* – Upright Yew  
*Taxus hicksi* – Hicks Yew  
*Thuja occidentalis* – American Arborvitae  
*x Cupressocyparis leylandii* – Leyland Cypress

**§27-718. Storage and Waste Disposal.** The following requirements shall apply to nonresidential land uses:

1. No liquids, solids or gases having a flash point less than 73° F (as specified in the National Fire Code Vol. 12 and 13, National Fire Protection Association), shall be stored in bulk above ground, except tanks or drums of fuel, having a maximum capacity of 3,000 gallons, connected directly with energy devices or heating appliances located and operated on the same lot as the tanks or drums of fuel.

**Capacity of Flammable Materials Permitted, Gallons<sup>15</sup>**

Flash Point Closed Cup Tester	Above Ground Storage (gal)
140° F or higher	10,000
74° F to 139° F	5,000
73° F or less, fuels connected to energy devices	3,000

2. All outdoor storage facilities for fuel, raw materials and products, and all fuel, raw materials and products stored outdoors, shall meet National Fire Code standards and shall be enclosed by a fence with a minimum height of seven (7) feet. The fence shall be chain link, stockade, picket (not exceeding 3 inch spacing), solid wood, building wall or such other material as may be acceptable to the zoning officer to carry out the intent of this Chapter.
3. No materials or wastes shall be deposited upon a lot in such Form or manner that they may be transferred off the lot by natural causes or forces, nor shall any substance which can contaminate a stream or water course or otherwise render such stream or watercourse undesirable as a source of water supply or recreation, or which will destroy aquatic life, be allowed to enter any stream or watercourse.
4. All materials or wastes which might cause fumes or dust, or which constitute a fire hazard, or which may be edible or otherwise attractive to rodents or insects, shall be stored outdoors only if enclosed in rigid containers adequate to eliminate such hazards. These containers shall be properly screened and blocked from view from public thoroughfares. Along zoning district boundaries, such containers shall not be stored within the buffer yards as required in §27-717.
5. Radioactivity and Electrical Disturbance. There shall be no activity that emits dangerous or harmful radioactivity. There shall be no electrical disturbance

<sup>15</sup> When flammable gases are stored and measured in cubic feet, the quantities of cubic feet at standard temperature and pressure shall not exceed 30 times the quantities listed above.

adversely affecting the operation of any equipment beyond the property line of the creator of such disturbance.